

Research on Consolidation in Educational Operations

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The first consideration in any debate about consolidation in Vermont's educational governance structure is to distinguish between school consolidation and school district consolidation (henceforth referred to as "reorganization"). School district reorganization is often thought to lead to consolidation, and it frequently does, but the two forms of educational merger have different effects on per pupil finances and student outcomes, so they must be considered as separate policy choices. This policy brief will consider both consolidation and reorganization for their effects on per pupil costs, as well as the effect of school consolidation on student outcomes.

Effects of School Consolidation on Student Outcomes

Of the three topics considered in this policy brief, the research is most uniform in this area: larger schools result in poorer outcomes for students (and teachers).ⁱ Academic research has demonstrated that smaller schools are safer, have fewer disciplinary incidences, higher student achievement, higher graduation rates, higher rates of participation in after-school activities, and greater satisfaction among families and students. A study commissioned by the U.S. Department of Education in 1999 noted that these strong outcomes for small schools has been, "confirmed with a clarity and a level of confidence rare in the annals of education research."ⁱⁱ

Teachers also report greater satisfaction with smaller schools. Superintendents from both urban and rural areas whose districts have restructured to make smaller schools rated this action as the single most effective way to retain teachers.ⁱⁱⁱ

In 1998, the Vermont Department of Education conducted a study of very small schools (100 students or less). They found that, "Students in small Vermont schools do as well or better than students in larger schools even though the income and education levels in the communities with small schools are lower."^{iv} The UVM Legislative Research Shop concurs, writing in 2007 that, "The research generally agrees that large schools can be quite detrimental to the quality of education."^v

Teacher Reports of Daily, Weekly or Monthly Incidents by (Traditional Urban) School Size^{vi}		
<i>Type of Incident</i>	<i>200 – 749 Students</i>	<i>1200 or more Students</i>
Robbery/Theft	21%	50%
Vandalism	18%	44%
Possession of weapons	2%	12%
Verbal Abuse of Teachers	30%	57%
Use of Illegal Drugs	5%	45%
Use of Alcohol	4%	39%
Widespread disorder in classrooms	15%	29%

Effects of School Consolidation on Costs

Some studies found that smaller schools are marginally more expensive to operate than larger schools, however studies of school closing efforts show that expected cost savings are usually not realized. "School consolidation produces less fiscal benefit and greater fiscal cost than it promises. While some costs, particularly administrative costs may decline in the short run, they are replaced by other expenditures, especially transportation and more specialized staff."ⁱ

In 1984, professor Richard R. Valencia examined 40 studies on the impact of school closures and concluded that "closing schools reduces per-pupil costs very little, if at all." One study reviewed by Valencia from 1974 examined 12 school districts that calculated changes in costs after school closures that were projected to cut costs. Four reported cost savings, six concluded there were no cost savings, and two reported cost increases.^{vii}

According to the 1998 Vermont Department of Education study, elementary districts with very small schools (less than 100 students) were 6 – 12 percent more expensive than larger districts. The study concluded, "Small schools in Vermont cost more to operate than larger schools but they are worth the investment because of the value they add to student learning and community cohesion."^{iv}

West Virginia's aggressive plan to close small schools was unsuccessful at both reducing local administrators or reducing costs, despite closing more than 300 schools statewide beginning in 1990. "[The school closing project] didn't save taxpayers money," according to School Building Authority Executive Director Clacy Williams. A 2002 investigation by the Charleston Gazette found that administrators increased by 16 percent over the prior ten years, despite enrollment declines of greater than 40,000 students. The state was also spending the highest percentage of education dollars on transportation in the nation.^{viii}

Many researchers have argued that the benefits smaller schools provide make any added cost a wise investment. Other than the superior student outcomes described above, data shows that because of smaller school's higher graduation rates, that the cost per graduate of smaller schools is less than cost per graduate at larger schools.^{ix} Economic vitality, housing values and community cohesion have also been shown to decline in towns whose schools are closed.^x

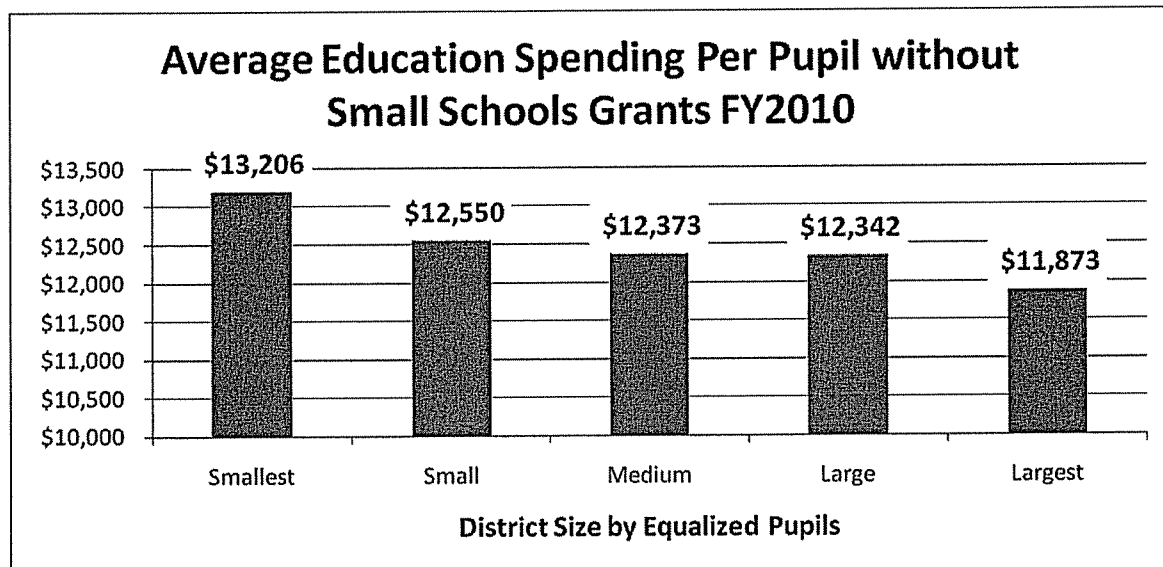
Effects of School Reorganization on Costs

School district reorganization (merging) has a poor record of delivering on expected cost reductions. "In studies from 1960 through 2004, there has not been evidence that consolidation of small districts into larger districts has necessarily reduced fiscal expenditures per pupil."ⁱ Decreases in administrative costs are the most frequently noted cost reduction, but increased teacher salaries and greater union bargaining power, increased use of specialized staff, and higher transportation costs are also common outcomes.^{xi}

Some studies do show per pupil cost decreases, particularly a study of rural district consolidation in New York State. "We found economies of size in operating and capital spending... Overall, consolidation makes fiscal sense, particularly for very small districts."^{xii} Others do not, such as a 1991 study of 19 districts three years before and

after a district reorganization. “There is no evidence to suggest that consolidation of small school districts into larger ones will necessarily reduce expenditures per student, increase standardized test scores, or reduce dropout rates.”^{xiii}

The Office of the Auditor General in Arizona released a report that showed that administrative costs were higher in the state’s smaller districts. Nevertheless, a researcher’s examination of the report found that “the OAG report suggests statewide school district consolidation is unlikely to produce the hoped-for fiscal savings... Therefore, consolidation is a marginal reform, best implemented on a limited, case-by-case basis.”^{xiv}



Analysis

In fiscal year 2010, Vermont's larger school districts authorized less spending per pupil than Vermont's smaller school districts.

Many of Vermont's smaller school districts receive Small Schools Grants, which effectively decrease their Education Spending per equalized pupil. This analysis removes these Grants from the calculation of Education Spending and groups the districts into quintiles by number of equalized pupils. The data shows that each successively larger quintile spends, on average, less per pupil than the smaller quintiles.

	Smallest	Small	Medium	Large	Largest
Average Cost Per Pupil	\$13,206	\$12,550	\$12,373	\$12,342	\$11,873
Range of Equalized Pupils	30 – 96	97 – 147	148 – 268	269 – 527	528 – 3943
Median Equalized Pupils	60	120	199	344	868

Methodology

All Vermont school districts with at least 30 equalized pupils were included in the study (254 districts total). These districts were grouped into quintiles by number of equalized pupils (each quintile included 50 or 51 districts). Each quintile's total education spending and total Small Schools Grants were summed and divided by the total number of equalized pupils in the quintile.

Districts with less than 30 equalized pupils were excluded because these districts generally tuition all their pupils, and most have low per pupil costs that are not representative of Vermont's smallest schools.

Bibliography

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- ⁱ Bard, Joe et al., "Rural School District Consolidation," *Academic Leadership*. 2007 Volume 4, Issue 2, 2007.
- ⁱⁱ Raywid, Mary Anne. January, 1999. "Current Literature on Small Schools." Charleston, West Va. ERIC Clearinghouse on Rural Education and Small Schools.
- ⁱⁱⁱ Hare, Debra and Heap, James. 2001. *Effective Teacher Recruitment and Retention Strategies in the Midwest: Who is Making Use of Them*, Oak Brook, Illinois: North Central Regional Educational Laboratory.
- ^{iv} Vermont Department of Education, "Small School Study," 1998.
- ^v Haynes, Kara C. et. al., "School District Consolidation," The University of Vermont, Vermont Legislative Research Shop, March, 2007.
- ^{vi} Hill, Paul T, and Christensen, Jon, "Safety and Order in Charter and Traditional Public Schools," in *Lake, Robin, Hopes, Fears and Reality: A Balanced Look at American Charter Schools in 2007*, Seattle: University of Washington National Charter School Research Project, pp. 61.
- ^{vii} Valencia, Richard R. (1984). School Closures and Policy Issues. Policy Paper No. 84-C3, ERIC No. ED323030.
- ^{viii} A Summary of *Closing Costs* by the *Charleston Gazette* (2002). Compiled by the Rural School and Community Trust.
- ^{ix} Lawrence, Barbara Kent, et. al., *Dollars & Sense: The Cost Effectiveness of Small Schools*. Knowledge Works Foundation. 2002.
- ^x Dreier, W. H. & Goudy, W. (1991). *Is there life in town after the death of the high school? High Schools and the population of Midwest towns*.
- ^{xi} "The Fiscal Impacts of School Consolidation." The Rural School and Community Trust. 2003.
- ^{xii} Duncombe, William and Yinger, John. "Does School District Consolidation Cut Costs?" Center for Policy Research, Syracuse University. 2005.
- ^{xiii} Streifel, James S, et. al. "The Financial Effects of Consolidation." *Journal of Research in Rural Education*; v7 n2 p13-20, ERIC No. EJ424923. 1991.
- ^{xiv} Murray, Vicki, and Groen, Ross, "Competition or Consolidation? The School District Consolidation Report Revisited." *Goldwater Institute*. 2004.